

Listing and Amendments to the Claims

This listing of claims will replace all previous versions and listings of claims in this application:

1. **(Currently Amended)** A method of embedding a digital watermark in an information signal; the method comprising

- ~~providing (415)~~ deriving a watermark secret ~~(106, 430)~~ from an identifier data item
identifying the information signal by a function which is computationally hard or
infeasible to invert;
- embedding ~~(107, 410)~~ a digital watermark ~~(421)~~ in ~~an~~ the information signal ~~(101, 414)~~
where said embedding is controlled by the watermark secret;
- calculating ~~(102, 404)~~ a digital fingerprint ~~(103)~~ from the information signal;
- storing ~~(104)~~ the calculated digital fingerprint as a reference digital fingerprint and
storing, in relation to the reference digital fingerprint, [[a]] said identifier data item (SID)
~~from which the watermark secret can be derived.~~

2. **(Currently Amended)** A method according to claim 1, wherein the information signal is an audio signal, the digital fingerprint is an audio ~~fingerprints~~ fingerprint, and the digital watermark is an audio watermark.

3. **(Currently Amended)** A method according to claim 1, wherein storing the calculated digital fingerprint and said identifier data item comprises storing the calculated digital fingerprint and the identifier data item in a fingerprint database ~~(105, 407)~~.

4. **(Cancelled)**

5. **(Previously Presented)** A method according to claim 1, wherein the watermark secret is determined by a random process.

6. **(Currently Amended)** A method according to claim 1, where the digital watermark comprises a watermark payload ~~(419)~~ and wherein the watermark payload is indicative of the information signal.

7. **(Currently Amended)** A method according to claim 6, further comprising encoding ~~(420)~~ said watermark payload based on an encryption key (~~K_p~~) derived from an identifier ~~(416)~~ indicative of an information content of the information signal.

8. **(Previously Presented)** A method according to claim 1, wherein the information signal is a video signal.

9. **(Currently Amended)** A method of detecting a digital watermark in an information signal ~~(500)~~; the method comprising

- providing ~~(407)~~ a plurality of digital reference fingerprints each calculated from a respective reference information signal, where each digital fingerprint is associated with a corresponding watermark secret;
- calculating ~~(404)~~ a digital fingerprint from ~~an~~ the information signal;
- determining ~~(502)~~ a matching digital fingerprint from the plurality of digital reference fingerprints as corresponding to the calculated digital fingerprint;
- detecting ~~(505)~~ whether a digital watermark according to the watermark secret associated with the matching digital fingerprint is present in the information signal.

10. **(Original)** A method according to claim 9, wherein determining a matching digital fingerprint comprises sending a query to a fingerprint database, the query comprising the calculated digital fingerprint; and receiving from the fingerprint database a response including a identifier data item from which the watermark secret associated with the matching digital fingerprint can be derived.

11. **(Original)** A method according to claim 10, wherein sending a query and receiving a response comprise communicating via a communications network.

12. **(Previously Presented)** A method according to claim 9, wherein the information signal comprises an encoded information signal; and calculating the digital fingerprint comprises decoding the encoded information signal, and calculating the fingerprint from the decoded information signal.

13. **(Previously Presented)** A method according to claim 10, wherein determining a matching digital fingerprint comprises performing a search in a fingerprint database based on reliability information about the calculated digital fingerprint.

14. **(Currently Amended)** An arrangement for embedding a digital watermark in an information signal; the arrangement comprising

- means for deriving a watermark secret from an identifier data item identifying the information signal by a function which is computationally hard or infeasible to invert;
- means ~~(107, 428)~~ for embedding a digital watermark in ~~an~~ the information signal where said embedding is controlled by a watermark secret;
- means ~~(102, 404)~~ for calculating a digital fingerprint from the information signal; and
- means ~~(105, 407)~~ for storing the calculated digital fingerprint as a reference digital fingerprint and for storing, in relation to the reference digital fingerprint, a identifier data item from which the watermark secret can be derived.

15. **(Currently Amended)** An arrangement for detecting a digital watermark in an information signal; the arrangement comprising

- means ~~(105, 407)~~ for providing a plurality of digital reference fingerprints each calculated from a respective reference information signal, where each digital fingerprint is associated with a corresponding watermark secret;
- means ~~(102, 404)~~ for calculating a digital fingerprint from ~~an~~ the information signal;
- means ~~(204, 502)~~ for determining a matching digital fingerprint from the plurality of digital reference fingerprints as corresponding to the calculated digital fingerprint; and
- means ~~(202, 505)~~ for detecting whether a digital watermark according to the watermark secret associated with the matching digital fingerprint is present in the information signal.

16. **(Cancelled)**